

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 09/783931 A  
Source: IFUO  
Date Processed by STIC: 5/6/5

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 05/06/2005

PATENT APPLICATION: US/09/783,931A

TIME: 15:23:53

Input Set : D:\Substi SEQLIST 7326-122 (as filed).TXT

Output Set: N:\CRF4\05062005\I783931A.raw

4 <110> APPLICANT: Ish-Horowicz, David  
 5 Henrique , Domingos Manuel Pinto  
 6 Lewis, Julian Hart  
 7 Artavanis Tsakonas, Spyridon  
 8 Gray, Grace  
 11 <120> TITLE OF INVENTION: ANTIBODIES TO VERTEBRATE DELTA PROTEINS  
 12 AND FRAGMENTS  
 14 <130> FILE REFERENCE: 7326-122-999  
 16 <140> CURRENT APPLICATION NUMBER: 09/783,931A  
 17 <141> CURRENT FILING DATE: 2001-02-15  
 19 <150> PRIOR APPLICATION NUMBER: 08/981,392  
 20 <151> PRIOR FILING DATE: 1997-12-22  
 22 <150> PRIOR APPLICATION NUMBER: PCT/US96/11178  
 23 <151> PRIOR FILING DATE: 1996-06-28  
 25 <150> PRIOR APPLICATION NUMBER: 60/000,589  
 26 <151> PRIOR FILING DATE: 1995-06-28  
 28 <160> NUMBER OF SEQ ID NOS: 94  
 30 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 32 <210> SEQ ID NO: 1  
 33 <211> LENGTH: 2508  
 34 <212> TYPE: DNA  
 35 <213> ORGANISM: Gallus gallus  
 37 <220> FEATURE:  
 38 <221> NAME/KEY: CDS  
 39 <222> LOCATION: (277)...(2460)  
 40 <223> OTHER INFORMATION: Chick Delta (C-Delta-1) gene  
 42 <400> SEQUENCE: 1  
 43 gaattcggca cgaggttttt tttttttttt ttccctcttt ttctttcttt tccttttgcc 60  
 44 atccgaaaga gctgtcagcc gccgccgggc tgcacctaaa ggcgtcggta gggggataac 120  
 45 agtcagagac cctcctgaaa gcaggagacg ggacggtacc cctccggctc tgcggggcgg 180  
 46 ctgcggcccc tccgttcttt cccctctccc gagagacact cttcctttcc cccacgaag 240  
 47 acacaggggc aggaacgcga gcgctgcccc tccgcc atg gga ggc cgc ttc ctg 294  
 48 Met Gly Gly Arg Phe Leu  
 49 1 5  
 51 ctg acg ctc gcc ctc ctc tcg gcg ctg ctg tgc cgc tgc cag gtt gac 342  
 52 Leu Thr Leu Ala Leu Leu Ser Ala Leu Leu Cys Arg Cys Gln Val Asp  
 53 10 15 20  
 55 ggc tcc ggg gtg ttc gag ctg aag ctg cag gag ttt gtc aac aag aag 390  
 56 Gly Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe Val Asn Lys Lys  
 57 25 30 35  
 59 ggg ctg ctc agc aac cgc aac tgc tgc cgg ggg ggc ggc ccc gga ggc 438  
 60 Gly Leu Leu Ser Asn Arg Asn Cys Cys Arg Gly Gly Gly Pro Gly Gly  
 61 40 45 50

P.6

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```

63 gcc ggg cag cag cag tgc gac tgc aag acc ttc ttc cgc gtc tgc ctg 486
64 Ala Gly Gln Gln Gln Cys Asp Cys Lys Thr Phe Phe Arg Val Cys Leu
65 55 60 65 70
67 aag cac tac cag gcc agc gtc tcc ccc gag ccg ccc tgc acc tac ggc 534
68 Lys His Tyr Gln Ala Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly
69 75 80 85
71 agc gcc atc acc ccc gtc ctc ggc gcc aac tcc ttc agc gtc ccc gac 582
72 Ser Ala Ile Thr Pro Val Leu Gly Ala Asn Ser Phe Ser Val Pro Asp
73 90 95 100
75 ggc gcg ggc ggc gcc gac ccc gcc ttc agc aac ccc atc cgc ttc ccc 630
76 Gly Ala Gly Gly Ala Asp Pro Ala Phe Ser Asn Pro Ile Arg Phe Pro
77 105 110 115
79 ttc ggc ttc acc tgg ccc ggc acc ttc tcg ctc atc atc gag gct ctg 678
80 Phe Gly Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu
81 120 125 130
83 cac acc gac tcc ccc gac gac ctc acc aca gaa aac ccc gag cgc ctc 726
84 His Thr Asp Ser Pro Asp Asp Leu Thr Thr Glu Asn Pro Glu Arg Leu
85 135 140 145 150
87 atc agc cgc ctg gcc acc cag agg cac ctg gcg gtg ggc gag gag tgg 774
88 Ile Ser Arg Leu Ala Thr Gln Arg His Leu Ala Val Gly Glu Glu Trp
89 155 160 165
91 tcc cag gac ctg cac agc agc ggc cgc acc gac ctc aag tac tcc tat 822
92 Ser Gln Asp Leu His Ser Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr
93 170 175 180
95 cgc ttt gtg tgt gat gag cac tac tac ggg gaa ggc tgc tct gtc ttc 870
96 Arg Phe Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe
97 185 190 195
99 tgc cgg ccc cgt gac gac cgc ttc ggt cac ttc acc tgt gga gag cgt 918
100 Cys Arg Pro Arg Asp Asp Arg Phe Gly His Phe Thr Cys Gly Glu Arg
101 200 205 210
103 ggc gag aag gtc tgc aac cca ggc tgg aag ggc cag tac tgc act gag 966
104 Gly Glu Lys Val Cys Asn Pro Gly Trp Lys Gly Gln Tyr Cys Thr Glu
105 215 220 225 230
107 ccg att tgc ttg cct ggg tgt gac gag cag cac ggc ttc tgc gac aaa 1014
108 Pro Ile Cys Leu Pro Gly Cys Asp Glu Gln His Gly Phe Cys Asp Lys
109 235 240 245
111 cct ggg gaa tgc aag tgc aga gtg ggt tgg cag ggc cgg tac tgt gac 1062
112 Pro Gly Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp
113 250 255 260
115 gag tgc atc cga tac cca ggc tgc ctg cac ggt acc tgt cag cag cca 1110
116 Glu Cys Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln Pro
117 265 270 275
119 tgg cag tgc aac tgc cag gaa ggc tgg ggc ggc ctt ttc tgc aac cag 1158
120 Trp Gln Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln
121 280 285 290
123 gac ctg aac tac tgc act cac cac aag cca tgc aag aat ggt gcc aca 1206
124 Asp Leu Asn Tyr Cys Thr His His Lys Pro Cys Lys Asn Gly Ala Thr
125 295 300 305 310
127 tgc acc aac acc ggt cag ggg agc tac act tgt tct tgc cga cct ggg 1254

```

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128	Cys	Thr	Asn	Thr	Gly	Gln	Gly	Ser	Tyr	Thr	Cys	Ser	Cys	Arg	Pro	Gly	
129					315					320					325		
131	tac	aca	ggc	tcc	agc	tgc	gag	att	gaa	atc	aac	gaa	tgt	gat	gcc	aac	1302
132	Tyr	Thr	Gly	Ser	Ser	Cys	Glu	Ile	Glu	Ile	Asn	Glu	Cys	Asp	Ala	Asn	
133				330					335					340			
135	cct	tgc	aag	aat	ggt	gga	agc	tgc	acg	gat	ctc	gag	aac	agc	tat	tcc	1350
136	Pro	Cys	Lys	Asn	Gly	Gly	Ser	Cys	Thr	Asp	Leu	Glu	Asn	Ser	Tyr	Ser	
137			345					350					355				
139	tgt	acc	tgc	ccc	cca	ggc	ttc	tat	ggt	aaa	aac	tgt	gag	ctg	agt	gca	1398
140	Cys	Thr	Cys	Pro	Pro	Gly	Phe	Tyr	Gly	Lys	Asn	Cys	Glu	Leu	Ser	Ala	
141		360					365				370						
143	atg	act	tgt	gct	gat	gga	ccg	tgc	ttc	aat	gga	ggg	cga	tgc	act	gac	1446
144	Met	Thr	Cys	Ala	Asp	Gly	Pro	Cys	Phe	Asn	Gly	Gly	Arg	Cys	Thr	Asp	
145	375					380				385					390		
147	aac	cct	gat	ggt	gga	tac	agc	tgc	cgc	tgc	cca	ctg	ggt	tat	tct	ggg	1494
148	Asn	Pro	Asp	Gly	Gly	Tyr	Ser	Cys	Arg	Cys	Pro	Leu	Gly	Tyr	Ser	Gly	
149				395					400					405			
151	ttc	aac	tgt	gaa	aag	aaa	atc	gat	tac	tgc	agt	tcc	agc	cct	tgt	gct	1542
152	Phe	Asn	Cys	Glu	Lys	Lys	Ile	Asp	Tyr	Cys	Ser	Ser	Ser	Pro	Cys	Ala	
153			410					415					420				
155	aat	gga	gcc	cag	tgc	gtt	gac	ctg	ggg	aac	tcc	tac	ata	tgc	cag	tgc	1590
156	Asn	Gly	Ala	Gln	Cys	Val	Asp	Leu	Gly	Asn	Ser	Tyr	Ile	Cys	Gln	Cys	
157			425					430					435				
159	cag	gct	ggc	ttc	act	ggc	agg	cac	tgt	gac	gac	aac	gtg	gac	gat	tgc	1638
160	Gln	Ala	Gly	Phe	Thr	Gly	Arg	His	Cys	Asp	Asp	Asn	Val	Asp	Asp	Cys	
161		440					445				450						
163	gcc	tcc	ttc	ccc	tgc	gtc	aat	gga	ggg	acc	tgt	cag	gat	ggg	gtc	aac	1686
164	Ala	Ser	Phe	Pro	Cys	Val	Asn	Gly	Gly	Thr	Cys	Gln	Asp	Gly	Val	Asn	
165	455					460				465					470		
167	gac	tac	tcc	tgc	acc	tgc	ccc	ccg	gga	tac	aac	ggg	aag	aac	tgc	agc	1734
168	Asp	Tyr	Ser	Cys	Thr	Cys	Pro	Pro	Gly	Tyr	Asn	Gly	Lys	Asn	Cys	Ser	
169				475				480					485				
171	acg	ccg	gtg	agc	aga	tgc	gag	cac	aac	ccc	tgc	cac	aat	ggg	gcc	acc	1782
172	Thr	Pro	Val	Ser	Arg	Cys	Glu	His	Asn	Pro	Cys	His	Asn	Gly	Ala	Thr	
173				490				495					500				
175	tgc	cac	gag	aga	agc	aac	cgc	tac	gtg	tgc	gag	tgc	gct	cgg	ggc	tac	1830
176	Cys	His	Glu	Arg	Ser	Asn	Arg	Tyr	Val	Cys	Glu	Cys	Ala	Arg	Gly	Tyr	
177			505					510					515				
179	ggc	ggc	ctc	aac	tgc	cag	ttc	ctg	ctc	ccc	gag	cca	cct	cag	ggg	ccg	1878
180	Gly	Gly	Leu	Asn	Cys	Gln	Phe	Leu	Leu	Pro	Glu	Pro	Pro	Gln	Gly	Pro	
181		520					525					530					
183	gtc	atc	gtt	gac	ttc	acc	gag	aag	tac	aca	gag	ggc	cag	aac	agc	cag	1926
184	Val	Ile	Val	Asp	Phe	Thr	Glu	Lys	Tyr	Thr	Glu	Gly	Gln	Asn	Ser	Gln	
185	535					540				545					550		
187	ttt	ccc	tgg	atc	gca	gtg	tgc	gcc	ggg	att	att	ctg	gtc	ctc	atg	ctg	1974
188	Phe	Pro	Trp	Ile	Ala	Val	Cys	Ala	Gly	Ile	Ile	Leu	Val	Leu	Met	Leu	
189				555				560					565				
191	ctg	ctg	ggt	tgc	gcc	gcc	atc	gtc	gtc	tgc	gtc	agg	ctg	aag	gtg	cag	2022
192	Leu	Leu	Gly	Cys	Ala	Ala	Ile	Val	Val	Cys	Val	Arg	Leu	Lys	Val	Gln	

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```

193          570          575          580
195 aag agg cac cac cag ccc gag gcc tgc agg agt gaa acg gag acc atg 2070
196 Lys Arg His His Gln Pro Glu Ala Cys Arg Ser Glu Thr Glu Thr Met
197          585          590          595
199 aac aac ctg gcg aac tgc cag cgc gag aag gac atc tcc atc agc gtc 2118
200 Asn Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Ile Ser Val
201          600          605          610
203 atc ggt gcc act cag att aaa aac aca aat aag aaa gta gac ttt cac 2166
204 Ile Gly Ala Thr Gln Ile Lys Asn Thr Asn Lys Lys Val Asp Phe His
205 615          620          625          630
207 agc gat aac tcc gat aaa aac ggc tac aaa gtt aga tac cca tca gtg 2214
208 Ser Asp Asn Ser Asp Lys Asn Gly Tyr Lys Val Arg Tyr Pro Ser Val
209          635          640          645
211 gat tac aat ttg gtg cat gaa ctc aag aat gag gac tct gtg aaa gag 2262
212 Asp Tyr Asn Leu Val His Glu Leu Lys Asn Glu Asp Ser Val Lys Glu
213          650          655          660
215 gag cat ggc aaa tgc gaa gcc aag tgt gaa acg tat gat tca gag gca 2310
216 Glu His Gly Lys Cys Glu Ala Lys Cys Glu Thr Tyr Asp Ser Glu Ala
217          665          670          675
219 gaa gag aaa agc gca gta cag cta aaa agt agt gac act tct gaa aga 2358
220 Glu Glu Lys Ser Ala Val Gln Leu Lys Ser Ser Asp Thr Ser Glu Arg
221          680          685          690
223 aaa cgg cca gat tca gta tat tcc act tca aag gac aca aag tac cag 2406
224 Lys Arg Pro Asp Ser Val Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln
225 695          700          705          710
227 tcg gtg tac gtc ata tca gaa gag aaa gat gag tgc atc ata gca act 2454
228 Ser Val Tyr Val Ile Ser Glu Glu Lys Asp Glu Cys Ile Ile Ala Thr
229          715          720          725
231 gag gtg taaaacagac gtgacgtggc aaagcttatc gataccgtca tcaagctt 2508
232 Glu Val
236 <210> SEQ ID NO: 2
237 <211> LENGTH: 728
238 <212> TYPE: PRT
239 <213> ORGANISM: Gallus gallus
241 <400> SEQUENCE: 2
242 Met Gly Gly Arg Phe Leu Leu Thr Leu Ala Leu Leu Ser Ala Leu Leu
243 1          5          10          15
244 Cys Arg Cys Gln Val Asp Gly Ser Gly Val Phe Glu Leu Lys Leu Gln
245          20          25          30
246 Glu Phe Val Asn Lys Lys Gly Leu Leu Ser Asn Arg Asn Cys Cys Arg
247          35          40          45
248 Gly Gly Gly Pro Gly Gly Ala Gly Gln Gln Gln Cys Asp Cys Lys Thr
249          50          55          60
250 Phe Phe Arg Val Cys Leu Lys His Tyr Gln Ala Ser Val Ser Pro Glu
251 65          70          75          80
252 Pro Pro Cys Thr Tyr Gly Ser Ala Ile Thr Pro Val Leu Gly Ala Asn
253          85          90          95
254 Ser Phe Ser Val Pro Asp Gly Ala Gly Gly Ala Asp Pro Ala Phe Ser
255          100          105          110

```

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256	Asn	Pro	Ile	Arg	Phe	Pro	Phe	Gly	Phe	Thr	Trp	Pro	Gly	Thr	Phe	Ser
257			115					120					125			
258	Leu	Ile	Ile	Glu	Ala	Leu	His	Thr	Asp	Ser	Pro	Asp	Asp	Leu	Thr	Thr
259		130					135					140				
260	Glu	Asn	Pro	Glu	Arg	Leu	Ile	Ser	Arg	Leu	Ala	Thr	Gln	Arg	His	Leu
261	145					150					155					160
262	Ala	Val	Gly	Glu	Glu	Trp	Ser	Gln	Asp	Leu	His	Ser	Ser	Gly	Arg	Thr
263					165					170					175	
264	Asp	Leu	Lys	Tyr	Ser	Tyr	Arg	Phe	Val	Cys	Asp	Glu	His	Tyr	Tyr	Gly
265				180					185					190		
266	Glu	Gly	Cys	Ser	Val	Phe	Cys	Arg	Pro	Arg	Asp	Asp	Arg	Phe	Gly	His
267			195					200					205			
268	Phe	Thr	Cys	Gly	Glu	Arg	Gly	Glu	Lys	Val	Cys	Asn	Pro	Gly	Trp	Lys
269		210					215					220				
270	Gly	Gln	Tyr	Cys	Thr	Glu	Pro	Ile	Cys	Leu	Pro	Gly	Cys	Asp	Glu	Gln
271	225					230					235					240
272	His	Gly	Phe	Cys	Asp	Lys	Pro	Gly	Glu	Cys	Lys	Cys	Arg	Val	Gly	Trp
273					245					250					255	
274	Gln	Gly	Arg	Tyr	Cys	Asp	Glu	Cys	Ile	Arg	Tyr	Pro	Gly	Cys	Leu	His
275				260					265					270		
276	Gly	Thr	Cys	Gln	Gln	Pro	Trp	Gln	Cys	Asn	Cys	Gln	Glu	Gly	Trp	Gly
277			275					280					285			
278	Gly	Leu	Phe	Cys	Asn	Gln	Asp	Leu	Asn	Tyr	Cys	Thr	His	His	Lys	Pro
279		290					295					300				
280	Cys	Lys	Asn	Gly	Ala	Thr	Cys	Thr	Asn	Thr	Gly	Gln	Gly	Ser	Tyr	Thr
281	305					310					315					320
282	Cys	Ser	Cys	Arg	Pro	Gly	Tyr	Thr	Gly	Ser	Ser	Cys	Glu	Ile	Glu	Ile
283					325					330					335	
284	Asn	Glu	Cys	Asp	Ala	Asn	Pro	Cys	Lys	Asn	Gly	Gly	Ser	Cys	Thr	Asp
285				340					345					350		
286	Leu	Glu	Asn	Ser	Tyr	Ser	Cys	Thr	Cys	Pro	Pro	Gly	Phe	Tyr	Gly	Lys
287			355					360					365			
288	Asn	Cys	Glu	Leu	Ser	Ala	Met	Thr	Cys	Ala	Asp	Gly	Pro	Cys	Phe	Asn
289		370					375					380				
290	Gly	Gly	Arg	Cys	Thr	Asp	Asn	Pro	Asp	Gly	Gly	Tyr	Ser	Cys	Arg	Cys
291	385					390					395					400
292	Pro	Leu	Gly	Tyr	Ser	Gly	Phe	Asn	Cys	Glu	Lys	Lys	Ile	Asp	Tyr	Cys
293					405					410					415	
294	Ser	Ser	Ser	Pro	Cys	Ala	Asn	Gly	Ala	Gln	Cys	Val	Asp	Leu	Gly	Asn
295				420					425					430		
296	Ser	Tyr	Ile	Cys	Gln	Cys	Gln	Ala	Gly	Phe	Thr	Gly	Arg	His	Cys	Asp
297			435					440					445			
298	Asp	Asn	Val	Asp	Asp	Cys	Ala	Ser	Phe	Pro	Cys	Val	Asn	Gly	Gly	Thr
299		450				455						460				
300	Cys	Gln	Asp	Gly	Val	Asn	Asp	Tyr	Ser	Cys	Thr	Cys	Pro	Pro	Gly	Tyr
301	465					470					475					480
302	Asn	Gly	Lys	Asn	Cys	Ser	Thr	Pro	Val	Ser	Arg	Cys	Glu	His	Asn	Pro
303					485					490					495	
304	Cys	His	Asn	Gly	Ala	Thr	Cys	His	Glu	Arg	Ser	Asn	Arg	Tyr	Val	Cys

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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; Xaa Pos. 4  
 Seq#:16; Xaa Pos. 11,15,23,24,28  
 Seq#:17; Xaa Pos. 41  
 Seq#:18; Xaa Pos. 34,35,39,44,96  
 Seq#:19; Xaa Pos. 1,19,23,32,33,36,43  
 Seq#:23; Xaa Pos. 25,34,35,38,97  
 Seq#:24; N Pos. 854,973,984,1582,1787,1819,1864,1916,1951,2033,2152,2156  
 Seq#:24; N Pos. 2171,2183,2194,2212,2220,2226,2230,2244,2245,2264,2265,2266  
 Seq#:24; N Pos. 2287  
 Seq#:26; N Pos. 559,678,689,1287,1492,1524,1569,1621,1656,1738,1857,1861  
 Seq#:26; N Pos. 1876,1888,1899,1917,1925,1931,1935,1942,1943,1952,1953,1954  
 Seq#:26; N Pos. 1968  
 Seq#:33; Xaa Pos. 25  
 Seq#:34; Xaa Pos. 27  
 Seq#:35; Xaa Pos. 166,179  
 Seq#:36; Xaa Pos. 51  
 Seq#:37; Xaa Pos. 28,39  
 Seq#:40; Xaa Pos. 4,43,45,50,54  
 Seq#:41; Xaa Pos. 5,8  
 Seq#:42; Xaa Pos. 1,4,5  
 Seq#:43; Xaa Pos. 226,230  
 Seq#:45; Xaa Pos. 55  
 Seq#:46; Xaa Pos. 47,58,73,101,128,167,168,181,187  
 Seq#:47; Xaa Pos. 2,4,5,7,8,11,16  
 Seq#:51; Xaa Pos. 126  
 Seq#:52; Xaa Pos. 30,33  
 Seq#:60; Xaa Pos. 76  
 Seq#:61; Xaa Pos. 12  
 Seq#:62; Xaa Pos. 4,19,36,48,75  
 Seq#:63; Xaa Pos. 16,17,22,26,30  
 Seq#:64; Xaa Pos. 2,6,8,10,13,14,19  
 Seq#:81; N Pos. 6,12,18,21  
 Seq#:82; N Pos. 3,9,12,15  
 Seq#:86; N Pos. 3,9,15,18,21  
 Seq#:87; N Pos. 3,6,18  
 Seq#:89; N Pos. 3,15,18  
 Seq#:91; N Pos. 6,9,21  
 Seq#:93; N Pos. 6



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L:1140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
 L:1158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
 M:341 Repeated in SeqNo=16  
 L:1184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:32  
 L:1216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:32  
 M:341 Repeated in SeqNo=18  
 L:1250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
 M:341 Repeated in SeqNo=19  
 L:1325 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:16  
 M:341 Repeated in SeqNo=23  
 L:1377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:840  
 M:341 Repeated in SeqNo=24  
 L:1449 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:540  
 M:341 Repeated in SeqNo=26  
 L:1588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:16  
 L:1611 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:16  
 L:1652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:160  
 M:341 Repeated in SeqNo=35  
 L:1681 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:48  
 L:1704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:16  
 M:341 Repeated in SeqNo=37  
 L:1753 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0  
 M:341 Repeated in SeqNo=40  
 L:1778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0  
 L:1797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0  
 L:1844 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:224  
 L:1899 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:48  
 L:1924 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:32  
 M:341 Repeated in SeqNo=46  
 L:1961 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0  
 L:2040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:112  
 L:2063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:16  
 M:341 Repeated in SeqNo=52  
 L:2194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:64  
 L:2221 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0  
 L:2242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0  
 M:341 Repeated in SeqNo=62  
 L:2273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0  
 M:341 Repeated in SeqNo=63  
 L:2296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0  
 M:341 Repeated in SeqNo=64  
 L:2584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0  
 L:2600 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 after pos.:0  
 L:2646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:0  
 L:2662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0  
 L:2691 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:0  
 L:2720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:0  
 L:2749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:0